

Report Information
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A human identification technique using images of the iris and wavelet transform.

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Abstract

A new approach for recognizing the **iris** of the human eye is presented. Zero-crossings of the wavelet transform at various resolution levels are calculated over **concentric circles** on the **iris**, and the resulting one-dimensional (1-D) signals are compared with model features using different dissimilarity functions.

Descriptors

BIOMETRICS-ACCESS-CONTROL; EYE; FEATURE-EXTRACTION; IDENTIFICATION; IMAGE-MATCHING; IMAGE-RECOGNITION; IMAGE-REPRESENTATION; IMAGE-RESOLUTION; WAVELET-TRANSFORMS.

Classification codes

B6140C Optical-information-image-and-video-signal-processing*;
B0290Z Other-numerical-methods;
C1250 Pattern-recognition*;
C4190 Other-numerical-methods.

Keywords

human-identification-technique; wavelet-transform; human-eye; **iris**-recognition; resolution-levels; **concentric**-circles; one-dimensional-signals; 1D-signals; model-features; dissimilarity-functions; computer-vision-based-techniques; zero-crossings; matching-algorithm; **iris**-patterns-representation.

Treatment codes

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X Experimental.

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Copyright 1998 IEE.

Search Strategy

No.	Database	Search term	Info added since	Results
1	INZZ	circle\$2 NEAR concentric\$2 AND (summation OR integra\$5) AND contour\$2 AND circumferen\$4	unrestricted	0
2	INZZ	circle\$2 NEAR concentric\$2	unrestricted	806
3	INZZ	summation OR integra\$5	unrestricted	1009302
4	INZZ	contour\$2	unrestricted	43497
5	INZZ	circumferen\$6	unrestricted	11680
6	INZZ	pupil\$1 OR iris\$2	unrestricted	18127
7	INZZ	6 AND 2	unrestricted	4

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